

Appln. No. 09/864,107
Amdt. dated August 30, 2004
Reply to Office Action dated July 7, 2004

R E M A R K S / A R G U M E N T S

Reconsideration of the present application, as amended, is respectfully requested.

The July 7, 2004 Final Office Action and the Examiner's comments have been carefully considered. In response, claims 1 and 10 are amended, claims 23 and 24 are added and remarks are set forth below in a sincere effort to place the present application in form for allowance. The amendments are supported by the application as filed. No new matter is added.

Inasmuch as the present Amendment raises no new issues for consideration, and, in any event, places the present application in condition for allowance or in better condition for consideration on appeal, its entry under the provisions of 37 CFR 1.116 is respectfully requested.

REJECTIONS UNDER 35 USC 112

In the Office Action, claims 1 and 10 are rejected under the first paragraph of 35 U.S.C. §112 as failing to comply with the enablement requirement. In response, claim 1 is amended to clarify that the measurement graphics can be generated "using only said mouse without activation of menus, toolbars and control

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panels". Claim 10 is similarly amended. These features are enabled by the specification which describes the generation of various measurement graphics based solely on the actual interaction of a mouse or other pointing device. Each click or pressing of a mouse button causes certain predefined actions to occur relating to a graphic so that by varying the number of clicks of the mouse on the medical image and movement of the mouse, different graphics can be generated without selection on a menu, toolbar, control panel or other extraneous user interface constructs of the specific type of graphic to be generated.

Thus, as described in the specification at page 1, lines 10-16, movement of the cursor to and from the menus, toolbars and control panels at the edge of the displayed image and the distraction of such menus, toolbars and control panels are avoided.

In view of the foregoing, it is respectfully submitted that the Examiner's rejection of claims 1-22 under the first paragraph of 35 U.S.C. §112 has been overcome and should be withdrawn.

In the Office Action claims 1-22 are also rejected under the second paragraph of 35 U.S.C. §112 as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention.

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Specifically, the Examiner states that the term "user interface construct" is ambiguous.

In response, claims 1 and 10 are amended to clarify that the measurement graphics can be generated without activation of menus, toolbars and control panels, thereby removing the phrase "user interface constructs" from the claims. The ability to generate measurement graphics using only a mouse or pointing device and without activation of menus, toolbars and control panels is discussed in the specification, e.g., at page 1, lines 10-20.

In view of the changes to claims 1 and 10 to remove the phrase "user interface constructs", the Examiner's rejection of claims 1-22 under the second paragraph of 35 U.S.C. §112 has been overcome and should be withdrawn.

PRIOR ART REJECTIONS

In the Office Action, claims 1-22 are rejected under 35 U.S.C. §103(a) as being unpatentable over USP 5,740,267 (Echerer et al.) in view of USP 6,614,452 (Cable).

The Examiner's rejection is respectfully traversed on the grounds that Echerer et al. and Cable do not disclose, teach or suggest, inter alia, generating measurement graphics using only a

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mouse or other pointing device without the activation of menus, toolbars and control panels.

A feature of the present invention is that it is possible to generate different measurement graphics without excessive mouse travel and to this end, it is not necessary to select the type of graphic to be generated on a menu, toolbar or control panel but rather, the graphic to be generated is based solely on activation of a mouse. Selection on a menu, toolbar or control panel of the specific type of graphic to be generated is not required, and the creation of a menu, toolbar or control panel which enables the selection or pre-selection of a type of graphic to be generated is also not required. Thus, in the invention, the generation of the measurement graphics is enabled "without activation of menus, toolbars and control panels" as set forth in claim 1.

Echerer et al. disclose a menu selection including a Manual Analysis menu wherein it is necessary to select specific buttons on the menu in order to generate a measurement graphic. An example is provided of pressing a "Distance" button in order to set the program to understand that the distance between the position of the mouse at the next two clicks of the mouse button is to be measured (see col. 13, lines 28-34). Echerer et al. thus

requires activation of the menu toolbar in order to generate different graphics.

Cable discloses a graphical user interface (GUI) which allows a user to perform various operations on a medical image. The GUI includes a control panel 312 with a measurement function section 318 (see Fig. 3A). The measurement function section 318 includes a measure button 348 and a pop-up menu 350 which are activated to select a function to be performed on a region of interest (ROI) and to select the ROI to which the function is to be applied, respectively. Cable thus requires activation of a toolbar in the form of the control section 312 in order to select the function to be performed by pressing the mouse buttons.

Echerer et al. and Cable therefore do not disclose, teach or suggest generating or enabling the generation of a plurality of different measurement graphics on a medical image using only a mouse without activating a menu, toolbar or control panel to select the type of measurement graphic to be generated. Rather, both Echerer et al. and Cable require movement of the mouse to a menu or toolbar in order to select the type of graphic to be generated when different measurement graphics are to be generated. The measurement techniques of Echerer et al. and Cable

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therefore involve excessive mouse travel which is avoided in the present claimed invention.

In view of the foregoing, claim 1 is patentable over Echerer et al. and Cable when taken either alone under 35 U.S.C. §102 or in combination under 35 U.S.C. §103.

The other references of record do not close the gap between the present claimed invention as defined by claim 1 and Echerer et al. in view of Cable.

Therefore, claim 1 and claims 2-9 and 19-22 which are either directly or indirectly dependent on claim 1 are patentable over all of the references of record under 35 U.S.C. §102 as well as 35 U.S.C. §103.

In addition, with respect to claim 20, Cable does not disclose enabling generation of a measurement graphic "based solely on the actuation of said at least one button of said mouse when said pointer symbol is situated on said medical image". The Examiner referred to cols. 7-8 of Cable and the description of clicking a pointer 344 to re-shape a region of interest (ROI). However, this does not generate a measurement graphic, i.e., cause a measurement to be performed based on the clicked locations on the medical image (e.g., a line measurement when two clicks are made). Rather, clicking merely serves to alter the

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shape of the existing region of interest and does not affect any measurement by the Cable system.

With respect to claim 22, Cable does not disclose, teach or suggest generating a measurement graphic without movement of the pointer symbol associated with the mouse outside of the medical image. In rejecting claim 22 the Examiner again relies on cols. 7-8 of Cable and the description of clicking a pointer 344 to re-shape a region of interest (ROI). In Cable, in order to create any ROI, the pointer must inherently move to the toolbar 312, which is outside of the medical image, in order to select the type of measurement graphic to be generated. Clicking on pointer 344 merely causes the ROI to be altered but does not create any new ROI or generate a measurement graphic, i.e., cause a measurement to be performed based on the clicked locations on the medical image. Thus, Cable does not disclose, teach or suggest the feature of claim 22.

Claim 10 is an apparatus claim and claim 19 is a machine readable computer program claim which are patentable over the cited references for reasons, inter alia, set forth above in connection with claim 1. Specifically, claim 10 recites that the processor is arranged to produce the different measurement graphics based on the list of measurement operations "using only

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the pointing device without activation of menus, toolbars and control panels". As discussed above, Echerer et al. and Cable do not disclose, teach or suggest enabling the generation or production of measurement graphics solely by means of actuation of one or more buttons of a mouse or other pointing device on a medical image and without activation of menus, toolbars and control panels.

Claims 11-18 which are either directly or indirectly dependent on claim 10 are patentable over the cited references in view of their dependence on claim 10 and because the references of record do not disclose, teach or suggest each of the limitations set forth in claims 11-18.

NEW CLAIMS

Independent claims 23 and 24 are added. Claim 23 includes features similar to those in claim 20 and claim 24 includes features similar to those in claim 22. Claims 23 and 24 should be patentable over the cited references for the same reasons that claims 20 and 22 are patentable over the cited references.

Submitted herewith is a check in the amount of \$122.00 for the presentation of one (1) independent claim and two (2) total claims above the highest number of claims for which payment was

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previously made. If any additional fees are due or if any overpayment has been made, please charge Deposit Account No. 14-1270 for such sum.

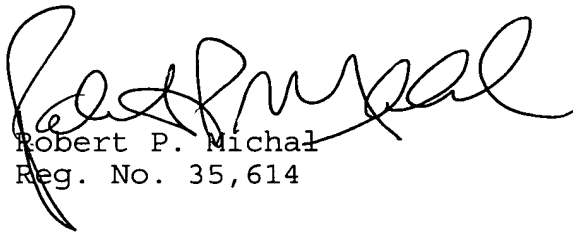
If the Examiner disagrees with any of the foregoing, the Examiner is respectfully requested to point out where there is support for a contrary view.

Entry of this Amendment under the provisions of 37 C.F.R. §1.116, allowance of the claims, and the passing of the application to issue are respectfully solicited.

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If the Examiner has any comments, questions, objections or recommendations, the Examiner is invited to telephone the undersigned at the telephone number given below for prompt action.

Respectfully submitted,



Robert P. Michal
Reg. No. 35,614

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Frishauf, Holtz, Goodman & Chick, P.C.
767 Third Avenue - 25th Floor
New York, New York 10017-2023
Tel. No. (212) 319-4900
Fax No. (212) 319-5101
RPM/ms

Encl.: Check in the Amount of \$122.00